Attachment G
Project Performance Evaluation Description

All proposals must include a plan for project performance evaluation. The plan should include a list of project-specific performance measures that will be used to assess project success, and should provide enough detail of how these performance measures will be quantified for reviewers to effectively evaluate the performance evaluation plan. The types of performance measures and corresponding performance evaluation plan will vary depending on the type of project (Fig. G-1). For restoration projects the performance evaluation plan is often called a *monitoring plan*. For most types of projects, project success is determined by measuring activities, outputs, or outcomes. Restoration project monitoring plans generally also include measures of environmental change, which may not be applicable to other types of projects. The following general discussion of performance measures should help project proponents develop their performance measure/monitoring plans.

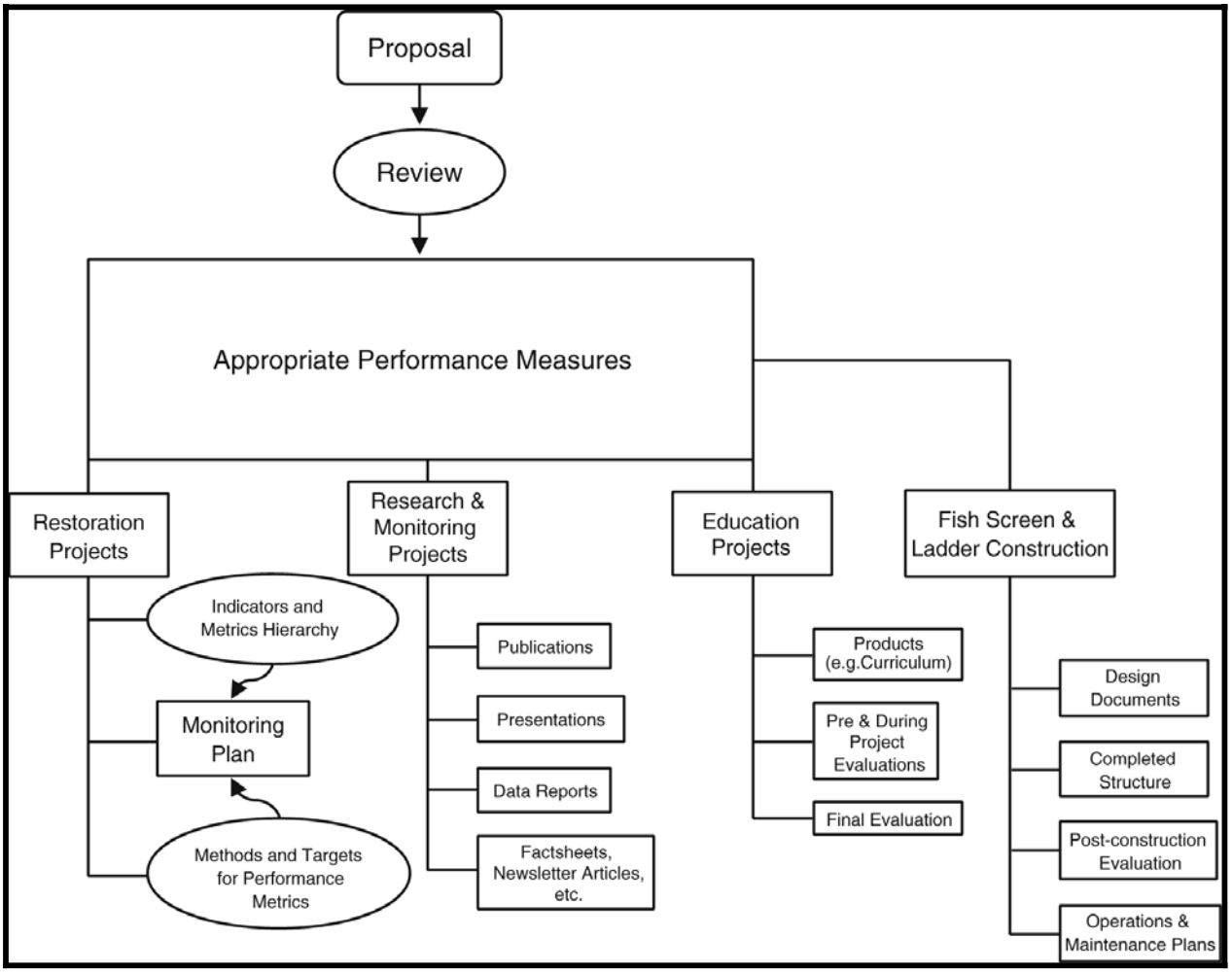

Figure G-1. Types of Performance Measures for Different Types of Projects.

Project goals and objectives can be translated into measurable benchmarks of project success referred to by the business and scientific communities as either "performance measures" or "indicators." The CALFED Program has decided to use the term "performance measure" for all measures of outputs, outcomes and environmental change resulting from project implementation that can be used for evaluating project success. The term "indicator" is reserved specifically for measures of environmental change.

Performance measures take many forms and can indicate progress at many levels: administrative, project actions, environmental status, direct responses to actions, and achievement of ultimate goals. In the early stages of a project, administrative performance measures and measures of actions are used to show that the project is being implemented. Where possible, baselines should be developed, or existing data should be exploited, prior to project implementation for comparison to responses by the environment or the economic and social system. Explanatory environmental variables that may affect responses must also be measured to substantiate claims of cause and effect. Changes in the ultimate goal-oriented performance measures may not be dramatic early in a program, but may become evident only as the effects of the program accumulate and the program matures.

Evaluation of the overall CALFED Ecosystem Restoration Program (ERP) performance requires the CALFED Program to develop a suite of site-specific (local), regional and program-wide performance measures. This suite of performance measures, or "report card," will be used to evaluate the cumulative effects of restoration actions on ecosystem structure, processes and associated stressors, and will allow managers to assess progress and refine actions as the program proceeds. For project proponents, tracking site-specific performance measures is critical for tracking individual project success and contributing to understanding of overall program success. Site-specific performance measures of individual project success should integrate up geographically and temporally to aid larger-scale program evaluation. Developing a system of performance measures for the CALFED Program will be an iterative process, whereby the initial performance measures are continuously evaluated for local and regional effectiveness and new performance measures are added as knowledge of change continues. In order to track performance measures, each indicator requires a "metric". A metric is a quantifiable measure of the trend in the indicator. Ideally each metric should be accompanied by a target: what was the metric before the project and what do the proponents desire for the metric after the project. A trajectory may be a useful target if a numeric target is not reasonable.

Core performance measures of project performance include four types of measures:

- Project Activities: specific program actions taken such as closing escrow on an acquisition (metric might be number of steps in accomplishing escrow completed), or placing gravel in a stream (project process and schedule) (metric = quantity of gravel placed, or proportion of targeted need fulfilled).
- Project Outputs: the direct products and services delivered by the program such as publications, presentations, plans, educational materials, structures. Metrics can be a count of the number of such products.

- Project Outcomes: intermediate and longer-term results for which the program is designed representing quantifiable results of actions such as an increased base of knowledge useful for researchers and decision-makers, changes in flow releases from reservoirs to benefit downstream fish populations, or changes in habitat . Metrics might be the character of the hydrograph (flow releases), or quantity of a given type of habitat (e.g. stream meters or miles of accessible habitat for reproduction; acres of a given type of habitat).
- Environmental Indicators: quantitative measures of progress over time towards achieving site-specific or systemwide environmental goals with metrics such as increased populations of at-risk native species, increased frequency floodplain inundation, or decreased rate of introduction of new species from ship ballast water.

All proposals must include narrative that describes what performance measures will be used to measure project success relative to each project goal and objective. Restoration projects will have several levels of performance measures while scientific studies will primarily use research products as performance measures. Each proposal should include specific performance measures for each of the applicable general categories of performance measures listed below. The specific performance measures should be tailored to the particular project.

For each major goal or objective, determine one or more specific performance measures for each of applicable general indicator categories:

Definitions:

a) Performance Measure: A measurable quantity that can be used as a proxy to measure progress towards an objective
b) Metric: Unit of measurement
c) Target: Level of performance that is sought within a certain timeframe (number)
d) Baseline: What existed prior to project implementation, i.e., what changes are being measured relative to. Measuring baseline
e) information may be a project task if the data are not available from previous work.

Additional performance measure examples will be posted on the web site after the pre-submittal workshop.